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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,801	06/21/2001	David Robert Fenn	OC-529	5080

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PPG INDUSTRIES INC  
INTELLECTUAL PROPERTY DEPT  
ONE PPG PLACE  
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EXAMINER

SERGEANT, RABON A

ART UNIT PAPER NUMBER

1711

DATE MAILED: 12/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/868,801

Applicant(s)

FENN ET AL.

Examiner

Rabon Sergeant

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4 and 6-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 6-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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1. In accordance with the order of August 31, 2004 from the Board of Patent Appeals and Interferences remanding the application to the examiner, prosecution of the application has been reopened. In view of the Appeal Decision, the rejection of claims 1, 2, 4, and 6-11 under 35 USC 103 as being unpatentable over Chattha ('906) or Peng et al. ('508) or WO 96/20968, each in view of WO 97/30099 has been withdrawn. Furthermore, consistent with the aforementioned remand order, a new ground of rejection follows.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2, 4, and 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/30099 alone or further in view of Noomen et al. ('363).

WO 97/30099 discloses the production of liquid coatings, wherein diphenylmethane diisocyanate is reacted with a polyester, corresponding to the instantly claimed polyester containing secondary hydroxyl groups, and a reactive diluent containing amine groups or

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blocked amine groups. Diphenylmethane diisocyanate is exemplified at line 44 of page 3 and the polyester containing secondary hydroxyl groups is set forth at page 6, line 29 through page 7, line 36. The polyester containing secondary hydroxyl groups is derived from the reaction of a polyfunctional carboxylic acid, such as a polyester containing two or more carboxylic acid groups, with a glycidyl ester of a C<sub>2</sub>-C<sub>20</sub> alkanolic acid.

4. Though the primary reference cites other suitable polyisocyanates and other hydroxyl functional compounds, the position is taken that it would have been obvious to select diphenylmethane diisocyanate from the list of specified polyisocyanates, because it is exemplified as being a suitable polyisocyanate for producing the coatings and because of its commercial availability and its accepted widespread utility within polyurethane applications, and that it would have been obvious to select the aforementioned polyester containing secondary hydroxyl groups from the disclosure of hydroxyl functional compounds in view of the disclosed preferred use of such compounds for producing the coatings of the reference. See page 6, line 35 through page 7, line 36.

5. With respect to the aforementioned reactive diluent, it is noted that while the primary reference discloses the use of aldimines, ketimines, or aspartic esters, the reference does not mandate the use of such diluents. These aforementioned diluents are disclosed as being preferred; however, the disclosure of the reference encompasses amines in addition to the preferred aldimines, ketimines, or aspartic esters. Therefore, the position is taken that it would have been obvious to employ amine compounds other than aldimines, ketimines, or aspartic esters as the disclosed amine functional diluent. Alternatively, even if the teachings within the primary reference are considered insufficient to support the selection of amines other than the

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preferred aldimines, ketimines, or aspartic esters, the position is further taken that it was known at the time of invention to employ oligomeric sterically hindered polyamines as replacements for such blocked or unblocked amines within coating compositions. Noomen et al. disclose that the use of such oligomeric hindered polyamines yields coatings having a desirable pot life/cure speed relationship not generally available with traditional unblocked polyamines, as well as a lower VOC and better appearance characteristics than generally available with the traditional blocked polyamines, such as aldimines and ketimines. See abstract and column 9, lines 16-35 within Noomen et al. Therefore, the position is taken that it would have been obvious to replace the aldimines, ketimines, or aspartic esters of the primary reference with the oligomeric hindered polyamines of Noomen et al., so as to obtain coatings having improved appearance and a lower VOC.

6. It is noted that claim 10 contains no limitations governing a reactive diluent.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

R. Sergent  
December 22, 2004

  
RABON SERGENT  
PRIMARY EXAMINER